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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/480,584	01/10/2000	Stephen Edward Hettinger	9D-HR-19167-HETTINGER	4498

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04/14/2006

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EXAMINER

TAMAI, KARL I

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/480,584

Applicant(s)

HETTINGER, STEPHEN EDWARD

Examiner

Tamai I.E. Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) 7, 15, and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification does not support a spring member that expands the hubs outward as set forth in claim 1.

Claim Rejections - 35 USC § 102

3. The rejection of Claims 1, 4, 8, 10, 11, and 14 under 35 U.S.C. 102(b) over Cunningham (US 3885176) is withdrawn.
4. The rejection of Claims 1, 4, 5, and 8-10 under 35 U.S.C. 102(b) over Else (US 1992818) is withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1, 3, 4, 6, 8, 10-12, 14, and 17 are rejected under 35 U.S.C. 102(b) as being clearly Cunningham (US 3885176), in further view of Braun (US 6384501). Cunningham teaches a shield 62 having a cylindrical shroud encompassing a portion of the bearing housing 64 (inherently part of the motor housing), and a hub which obstructs the opening in the shroud to prevent dirt from getting into the motor. Cunningham teaches the opening and the hood both are positioned along the shaft axis. Cunningham teaches the seals 61 engaging the shaft sufficiently tightly to rotate therewith. Cunningham teaches the hub and shroud are integrally molded, and adapted to flex around the shaft. Cunningham seal 62 encompassing the endcap 64 of the housing. Cunningham teaches every aspect of the invention except spring member expanding as the hub receives the shaft and the slots (including three slots 1d) on the hub which expand during insertion of the shaft. Braun teaches the hub being frustoconical at the opening 1e. Braun teaches slots are included on the hub with at least three slots on the hub to provide localized force during press fitting of the shaft and a spring ring 2. Braun teaches the frustoconical portion 1e for the insertion of the shaft. Braun teaches that only a small force is required during installation with no bending stress transmitted through the hub to provide reduced manufacturing costs (see col. 4, lines 10-20). It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the dust shield of Cunningham with an spring and slots on the hub to properly position the hub and to reduce manufacturing costs and assembling stress as taught by Braun.

7. Claims 2, 5, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunningham and Braun, in further view of Otto (US 4287662). Cunningham and Braun teach every aspect of the invention except opening being tapered with the output shaft stretching around the shaft to form an interference fit. Otto teaches a shield having a hub 45 with tapers in a frustroconical cross sections towards the opening to grippingly engages the shaft 33. Otto teaches the sleeve gripping the shaft (inherently adapted to flex/stretch around the shaft. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Cunningham and Braun with the hub tapered and stretching around the shaft to grippingly engage the shaft as taught by Otto.

8. Claim 18 is rejected under 35 U.S.C. 102(b) as being clearly Cunningham and Braun, in further view of Lakin (US 4800309). Cunningham and Braun teach every aspect of the invention except the hub including a plurality of spring members exerting a force on the output shaft. Lakin teaches a hub with a plurality of spring fingers to firmly hold rotor spacer 36 on the shaft. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the dust shield of Cunningham and Braun with the plurality of spring fingers of Lakin to firmly hold dust shield in place as taught by Lakin.

Allowable Subject Matter

9. Claims 7, 15, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 2/7/2006 have been fully considered but they are not persuasive. Applicant's arguments regarding Cunningham and Braun are not persuasive. Applicant's argument regarding motivation is not persuasive. Cunningham and Braun both teach parts of a motor with hubs mounted to the shaft, where Braun Literally teaches the hub can be easily fit on to the shaft without bending stresses, it maintains the hubs position even if the shaft is degraded and it reduces manufacturing costs (col. 4, lines 10-20). Applicant's argument that there is no motivation to combine the references with Otto is not persuasive. Otto teaches the hub 13 (sleeve 13) is grippingly engaged to the shaft. In combination with the teaching of Braun the gripping involves the expansion of the hub to provide a locked attachment with the shaft. Applicant's argument regarding hindsight/template use of the current application is not persuasive because the motivation is literally set forth in the cited references as discussed above. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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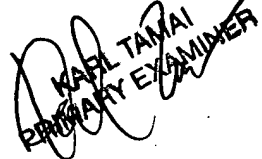
applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (571) 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
April 12, 2006


KARL TAMAI
PRIMARY EXAMINER